

Dutch Patent No. 8203180

---

Job No.: 360-83913

Ref: #59DALEXANDER8203182

Translated from Dutch by the Ralph McElroy Translation Company  
910 West Avenue, Austin, Texas 78701 USA

PATENT OFFICE  
THE NETHERLANDS  
PATENT NO. 8203180

Int. Cl.<sup>3</sup>:

D 06 N 3/18  
B 32 B 5/00

Filing No.:

8203180

Filing Date:

August 13, 1982

Date Laid-open to Public Inspection:

March 1, 1984

CARPET TILE THAT CAN BE LAID LOOSELY

Applicant:

Cornelus Johannes van Heugten of  
Leusden

Agent:

F.X. Noz et al.,  
Algemeen Octrooibureau  
Boschdijk 155  
5612 HB Eindhoven

The copy of the specification with claim(s) and drawing(s) if applicable, which are all attached to this page, contains changes relative to the originally filed documents; the latter can be inspected, on request, at the Patent Office.

The invention pertains to a carpet tile that can be laid loosely and that is provided with an uppermost carpet layer and a rigid underlayer.

Such carpet tiles are generally known. In the case of a first, existing form of embodiment, the upper carpet layer is applied directly to the underlayer that comprises atactic polypropylene, whereby this material gives a very hard, rigid underlayer.

In the case of a further existing form of embodiment, a heavy rigid underlayer is obtained via a composition that is manufactured on the basis of bitumen and that contains fine sand and bitumen. In this case, the carpet layer is frequently treated with a thin layer of latex on its underside in order to guarantee good anchoring of the yarns of the carpet layer. The underlayer, which is manufactured from a material on the basis of bitumen, is then applied to this thin latex layer.

A third form of embodiment is the manufacture of the underlayer from a composition that is based on PVC, whereby the carpet layer is anchored in the PVC composition that is constructed in such a way that a heavy rigid underlayer is formed. Such a heavy rigid underlayer is necessary in order to be able to lay the carpet tiles on the floor in the form of loose tiles without the danger of the tile curling up, shifting its position, etc.

However, a disadvantage of these existing constructions is that a carpet that is assembled from such carpet tiles is subject to rapid so-called "impoverishment", and the carpet layer will also start to show wear phenomena after a relatively short period of time.

The aim of the invention is to obtain a carpet tile of the type that has been designated above, whereby the disadvantages that are designated above for known carpet tiles can be counteracted.

In accordance with the invention, this can be achieved by applying an intermediate layer between the carpet layer and the underlayer, whereby this intermediate material comprises a springy material.

As a result of this, it has been found, surprisingly, that the wear and impoverishment phenomena start to appear only after a considerably longer period of time than is the case with existing carpet tiles while, in addition, the sound attenuation and/or insulation properties of the carpet tile in accordance with the invention are considerably better than those of the carpet tiles that have become known thus far. In addition, the carpet that is formed by means of such carpet tiles will exhibit a certain springiness and this makes it pleasant to walk on the carpet.

An additional advantage of the carpet tile in accordance with the invention is that areas of unevenness, which are possibly present in the background, can be taken care of more easily.

The invention will be elucidated in more detail below on the basis of the accompanying diagram in which a carpet tile in accordance with the invention is depicted schematically along with the various layers, which are separated from one another, in the form of a perspective view.

As is shown in the diagram, a carpet tile in the example of an embodiment that is illustrated is assembled from a set of three layers, namely an uppermost carpet layer 1, an intermediate layer 2, which is located below it and which comprises a springy material, and a lowermost underlayer 3 that comprises a relatively rigid material.

The uppermost carpet layer 1 will be assembled in a conventional manner from fibers, whereby these fibers will be connected to one another e.g. via a thin latex layer that is applied on the underside of the carpet layer.

The intermediate layer 2 will preferably be manufactured from a springy synthetic material, e.g. a foamed synthetic material.

The lowermost layer 3 can be manufactured from the same material as that which is described above for known carpet tiles, preferably from a composition that is manufactured from a material based on bitumen.

The rigid underlayer 3 will ensure the properties of the carpet tile that are necessary for laying loose tiles, while the intermediate springy material layer 2 will confer the necessary springiness on the carpet tile, whereby this contributes in a surprising manner to prolonging the life of the carpet tile as well providing several additional favorable properties of the carpet tile, such as sound attenuation, a springy feel when walking on the carpet tile, etc., as mentioned above.

If the carpet tile is required to be assembled from more than three layers, then it is preferably ensured that the layer which comprises a springy material, is located directly under the carpet layer.

#### Claims

1. Carpet tile that can be laid loosely and that is provided with an uppermost carpet layer and a rigid underlayer, with the characterizing feature that an intermediate layer is applied between the carpet layer and the underlayer, whereby this intermediate material comprises a springy material.
2. Carpet tile in accordance with Claim 1, with the characterizing feature that when the carpet tile is assembled from more than three layers, the intermediate layer, which comprises a springy material, is applied directly under the carpet layer.
3. Carpet tile in accordance with one of the preceding claims, with the characterizing feature that the underlayer is manufactured from a composition based on bitumen.
4. Carpet tile in accordance with one of the preceding claims, with the characterizing feature that the intermediate layer is manufactured from a foamed springy synthetic material.

